

REMARKS

By this amendment, claims 1-3, 6, 7, and 12-15 have been amended, and claims 16 and 17 have been added. Thus, claims 1-17 are now active in the application. Reexamination and reconsideration of the application is respectfully requested.

Minor amendments to the specification and abstract have been made in order to correct various editorial and idiomatic errors. No new matter has been added by such amendments.

In items 1 and 2 on pages 2-4 of the Office Action, claims 1, 3, 4, 6, 9, 13 and 14 were rejected under 35 U.S.C. 102(b) as being anticipated by Maeda et al. (U.S. 4,886,246); and claims 2, 5, 7, 8, 10-12 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda '246 in view of Ohshita et al. (U.S. 4,823,740). These rejections are believed clearly inapplicable to the claims as now presented, for the following reasons.

Claim 1 has been amended to specify that a discharge port 16 is provided in the vicinity of the fluidized bed floor for discharging the fluidized medium, that a fluidized medium discharge chute (e.g. 20a) extends downwardly, with the discharge port 16 being connected to the fluidized medium discharge chute 20a; and that a gas blow device 13 is provided below the fluidized medium discharge chute 20a for blowing a gas 30 into an interior of the fluidized medium discharge chute 20a.

In the prior art rejections presented in the March 9, 2004 Office Action, the Examiner stated that "Maeda et al. discloses a fluidized-bed furnace comprising: a discharge port 6b provided in the vicinity of a floor in a fluidized bed 7b for discharging a fluidized medium ..., the discharge port 6b is connected to a fluidized medium discharge chute 4 extending downwardly; and a reducing gas is supplied to a conduit 3 ..., which constitutes a gas blow device 3." Thus, the Examiner likened the ore discharge port 6b of Maeda et al. to the claimed discharge port for discharging the fluidized medium, and likened the ore discharge chute 4 of the Maeda et al. patent to the claimed fluidized medium discharge chute. In addition, the Examiner likened the reducing the gas supply conduit 3 of Maeda et al. to the claimed gas blow device.

However, claim 1, having now been amended, requires the gas blow device 13 to be provided below the fluidized medium discharge chute (e.g. 20a) "for blowing a gas into an interior of said fluidized medium discharge chute." The provision of this gas blow device to perform the blowing of gas into the interior of the fluidized medium discharge chute provides the advantages as described in the present specification at, for example, page 16, line 13 through page 18, line 4. Such a gas blow device as now required by claim 1 is clearly not disclosed in the Maeda et al. patent.

That is, in Maeda et al., the supply conduit 3 supplies a reducing gas through its inlet port 3b to then flow up through a multiplicity of perforations or openings 6a in a distributor 6 "to create diffused gas streams necessary for the prereduction of the charged ore particles." (See column 5, lines 36-57). The reducing gas introduced by the supply conduit 3 is not, however, blown into an interior of the ore discharge chute 4, as specifically required by claim 1.

The Ohshita patent was cited by the Examiner for teaching that "it is conventional to provide a screw conveyor 72 as a mechanical means of removing the incombustible residue or fluidizing medium away from discharge passage 69 or discharge chute". However, the Ohshita et al. patent provides no teaching or suggestion which would have obviated the above-discussed shortcomings of the Maeda et al. patent.

Accordingly, in view of the above, it is apparent that the Maeda et al. and Ohshita references, whether taken individually or in combination, do not disclose or suggest the present invention as recited in present claim 1.

New method claim 17 corresponds to the amended independent claim 1, similarly specifying "blowing a gas from a gas blowing device provided below the fluidized medium discharge chute into an interior of the fluidized medium discharge chute." As discussed above, this feature is clearly not taught or suggested by the prior art.

For the above reasons, it is respectfully submitted that claims 1 and 17, as well as claims 2-16 which depend from claim 1, are clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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June 9, 2004